

REMARKS

In the Office Action mailed June 1, 2004 the Examiner noted that claims 1-49 were pending, objected to claim 48 and rejected claims 1-49. Claims 1, 9, 18, 23, 31, 40, and 45-48 have been amended, claims 5 and 49 have been canceled, new claims 50 and 51 have been added and, thus, in view of the forgoing claims 1-4 and 6-48, 50 and 51 remain pending for reconsideration which is requested. No new matter has been added. The Examiner's rejections and objections are traversed below.

Claims 1, 9, 18, 23, 31, 40, and 45-48 have been amended. The amendment to these claims has incorporated the features of cancelled claim 5 there into. That is, the amendment raises no new issues and entry and consideration thereof is therefore requested.

On page 2 of the Action the Examiner objected to claim 48 and claim 48 has been amended in a way that this objection has become moot. Withdrawal of the objection is requested.

On page 2 of the Office Action, the Examiner rejected all claims under 35 U.S.C. § 102 as anticipated by Fujii, that is, Fujii is alleged to teach all of the features of the claims.

In Fuji, the distance is used in a comparison of a projected point and a vicinal point. In contrast, the present invention compares vicinal feature point information including position, type and direction. Fujii does not compare vicinal type and direction. The comparison of position, type and direction is emphasized in claims 1, 9, 18, 23, 31, 40, and 45-48. The Examiner, on page 4 of the Action points to col. 13, lines 28-31 of Fujii alleging that this portion of Fujii teaches this feature. This portion of Fuji states:

As another method for identifying feature points, it may be determined whether or not the types, positions, and directions of feature points match and whether or not ridge connection relation information satisfies a predetermined criterion.
(See Fujii, col. 13, lines 28-31)

This portion of Fujii addresses comparison of feature points and does not address the comparison of vicinal feature points as in the present invention. Nowhere in Fujii is there a teaching or suggestion of comparing position, type and direction of vicinal feature points. Such a comparison of vicinal feature point position, type and direction provides improved finger point matching.

It is submitted that the present claimed invention patentably distinguishes over Fujii and withdrawal of the rejection is requested.

The dependent claims depend from the above-discussed independent claims and are patentable over the prior art for the reasons discussed above. The dependent claims also recite additional features not taught or suggested by the prior art. For example, claim 4 calls for ridge count comparison. The Examiner points to Fujii col. 13, lines 15-28 for this feature. This portion states:

In this method, the match ratio of the positions, types, and directions of feature points is determined so as to identify the feature points. When all the following conditions are satisfied between two feature points, they are treated as the same feature points.

- 1) The types of the feature points are the same.
- 2) The difference of the directions of the feature points is within a predetermined threshold value.
- 3) The distance between features is equal to or smaller than a predetermined threshold, or the difference between the coordinates of the feature points in the common coordinate system is equal to or smaller than a predetermined threshold.

(See Fujii, col. 13, lines 15-28)

This portion of Fujii says nothing about counting ridges. It is submitted that the dependent claims are independently patentable over the prior art.

New claims 50 and 51 have been added and emphasize comparing point position, type and direction to determine whether there is a match. The prior art does not teach or suggest such.


It is submitted that the claims are not taught, disclosed or suggested by the prior art. The claims are therefore in a condition suitable for allowance. An early Notice of Allowance is requested.

If any further fees, other than and except for the issue fee, are necessary with respect to this paper, the U.S.P.T.O. is requested to obtain the same from deposit account number 19-3935.

Respectfully submitted,

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